

Work Order ID 57276

March 31, 2010 12:42:59 PM



Page 1

Item ID: D412-702-051B

Accept



Setup Start



Revision ID:

Stop



Item Name: 1-Man Shoulder Harness, LH, 3 point

Start Date: 31/03/2010 Start Qty: 4.00



Cust Item ID:

Required Date: 09/04/2010 Req'd Qty: 4.00

Customer:

Reference:

Run Start



Approvals:

Process Plan:

14

Date:

10-3-3

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

DSI9397

Rev A

100



DC

Document Control

DOCUMENT CONTROL

0.00

Memo

0.00

Photocopy bluefile & type labels per PPP D412-702-051B CHG002

S 10/04/13

DGA BG 10/04/13 P10 →

100.1

Pick Kit

110



QC

Quality Control

QC4- 100% Inspect kits for completeness

0.00

Memo

0.00

8 10/04/13

P 10/4/13 (1)

(14)

120



Packaging

Packaging

Packaging

0.00

Memo

0.00

Identify and pack for shipping as per PPP D412-702-051B

Location:

PPP Rev: *B*

P 10/4/13 (4)

W/O: 57276		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/4/13	4 100	Perm. Change Missing Bolt AN4-44A ADD to kit AN4-44A in <u>104806</u> x1 per kit 10/4/13-41					8 10/4/13
	100.1	update w/o + Bom. - ADD copy of new Bom as reference ADD "Pick kit"		10.04.13			8 10/4/13

Part No: DH12-702-051B PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Page 2

Item ID: D412-702-051B

Accept



Setup Start



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Required Date: 09/04/2010 Req'd Qty: 4.00



Cust Item ID:

Customer:

Reference:

Run Start



Stop



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/04/13 *[Signature]*

MF

10-4-13

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Picklist Print

March 31, 2010 12:43:03 PM

Page 1

Work Order ID: 57276

Parent Item: D412-702-051B

Parent Item Name: 1-Man Shoulder Harness, LH, 3 point

Comments: IPP Rev:A new issue ECN 1070 07-12-03 DD verified by:ec
IPP Rev:B now at chg002 ECN1150 08-03-31 DD verified by:

Start Date: 31/03/2010

Required Date: 09/04/2010

Start Qty: 4.00

Required Qty: 4.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

AN4-10A 2x



Bolt

Warehouse

Location

Main Warehouse

ST356

103962

108986

111425

113422

Loc Qty

Loc Code

106

4

9

43

50

110

Each

8.0000

12.0000

AN960JD416 3x



Washer

Purchased

No

Warehouse

Location

Main Warehouse

ST357

111279

Loc Qty

Loc Code

8

8

NA01147024635

M110425

M113706

Pa/y/13 (4)

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Required Date: 09/04/2010

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Required Qty: 4.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960JD416L 2P Washer		Purchased	No			110	Each	649.0000	8.0000			



Washer
AP01149004165

Warehouse

Location

Main Warehouse

ST346

Loc Qty

Loc Code

649

4

54

35

156

400

M114056
9450ch

D3542-1



Bracket

Manufactured No

110

Each

23.0000

4.0000

Warehouse

Location

Main Warehouse

ST245

Loc Qty

Loc Code

23

2

11

10

97190

11/04/13 (4)

March 31, 2010 12:43:03 PM

Shop Packet Print

Page 2

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Required Qty: 4.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3571-3 Guide		Manufactured	No			110	Each	8.0000	4.0000			

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST245A	8	
47142	8	

D3610-041 Bracket		Manufactured	No			110	Each	33.0000	4.0000			
----------------------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST244A	33	
47144	25	
51650	8	

D3618-1 CAP		Manufactured	No			110	Each	95.0000	4.0000			
----------------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST244A	95	
55669	95	

March 31, 2010 12:43:03 PM

Shop Packet Print

Page 3

W/O:		WORK ORDER CHANGES					
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March 31, 2010 12:43:03 PM

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Required Date: 09/04/2010

Start Qty: 4.00

Required Qty: 4.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3761-1-041 HOOK & LOOP STRIP	Per DS I 9402	Manufactured	No			110	Each	10.3300	4.0000			

57662

14/4/13

Warehouse

Location

Main Warehouse

ST

57201

Main Warehouse

ST086

38270

Loc Qty

Loc Code

10

10

0.33

0.33

Each

0.0000

4.0000

57245

10

D412-702-107B

Manufactured

No

110

Harness Assembly

March 31, 2010 12:43:03 PM

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Page 4

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March 31, 2010 12:43:03 PM

Page 5

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Required Date: 09/04/2010

Start Qty: 4.00

Required Qty: 4.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS21042L4 37 Nut		Purchased	No			110	Each	1,914.000	12.0000			

Warehouse

Location

Main Warehouse

ST139

12

111827

12

Main Warehouse

ST300

1902

102552

6

104248

6

110507

184

113422

698

114108

1000

9063

8

110

Each

22.0000

4.0000

Warehouse

Location

Main Warehouse

ST288

22

108560

22

Shop Packet Print

March 31, 2010 12:43:03 PM

Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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QTY -051A	QTY -052A	QTY -051B	QTY -052B	Part Number	Description
X				D412-702-051A	1-Man 3-Point LH Shoulder Harness Kit
	X			D412-702-052A	1-Man 3-Point RH Shoulder Harness Kit
		X		D412-702-051B	1-Man 3-Point LH Shoulder Harness Kit
			X	D412-702-052B	1-Man 3-Point RH Shoulder Harness Kit
1				D412-702-107A	HARNESS ASSEMBLY
1*				D3573-3	ADAPTER
1*				D3579-042	SHOULDER HARNESS
1*				K6.2	CLIP
4*				MS24693S272	SCREW
4*				AN960JD10LL	WASHER
4*				MS21042L3	NUT
	1			D412-702-109A	HARNESS ASSEMBLY
	1*			D3573-3	ADAPTER
	1*			D3579-041	SHOULDER HARNESS
	1*			K6.2	CLIP
	4*			MS24693S272	SCREW
	4*			AN960JD10LL	WASHER
	4*			MS21042L3	NUT
		1		D412-702-107B	HARNESS ASSEMBLY
		1*		D3573-3	ADAPTER
		1*		D3579-046	SHOULDER HARNESS
		1*		K6.2	CLIP
		4*		MS24693S272	SCREW
		4*		AN960JD10LL	WASHER
		4*		MS21042L3	NUT
			1	D412-702-109B	HARNESS ASSEMBLY
			1*	D3573-3	ADAPTER
			1*	D3579-045	SHOULDER HARNESS
			1*	K6.2	CLIP
			4*	MS24693S272	SCREW
			4*	AN960JD10LL	WASHER
			4*	MS21042L3	NUT
1	1	1	1	D3542-1	BRACKET
1	1	1	1	D3571-3	GUIDE
1	1	1	1	D3610-041	BRACKET
1	1	1	1	D3618-1	CAP
2	2	2	2	AN4-10A	BOLT
1	1	1	1	AN4-44A	BOLT
1	1	1	1	MS24693S274	SCREW
3	3	3	3	AN960JD416	WASHER
2	2	2	2	AN960JD416L	WASHER
3	3	3	3	MS21042L4	NUT

*Denotes that part is included with assembly above

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 07.11.21
CERT. NO.: SH04-7
ISSUE NO.: 3

DESIGN	LE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	LE	
CHECKED		DRAWING NO.
MFG. APPR.	N/A	DSI 9397
APPROVED	<i>[Signature]</i>	TITLE
DE APPR.	<i>[Signature]</i>	SHOULDER HARNESS KITS
DATE	07.11.21	REV. A
		SHEET 3 OF 3
		SCALE
		NTS

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WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
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DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-702 REV. D & E

REF. CANADIAN STC: SH04-7

REF. FAA STC: SR01997NY

EASA STC: EASA.IM.R.S.00710

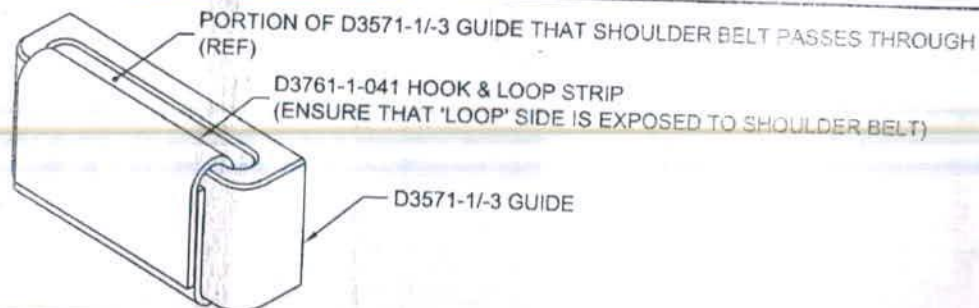
REFERENCE ONLY

DSI9408-011/-013/-015/-017 Hook and Loop Strip Kits are available to upgrade existing D412-702-041A/-043A/-045A/-049A/-051A/-051B/-052A/-052B 3-Point Shoulder Harness Kits at CHG 001 and D412-702-041B/-043B/-045B/-049B 3-Point Shoulder Harness Kits at CHG 002. The DSI9408-011/-013/-015/-017 kits are included in D412-702-041A/-043A/-045A/-049A/-051A/-051B/-052A/-052B kits at CHG 002 and D412-702-041B/-043B/-045B/-049B kits at CHG 003.

The DSI9408 kits provide D3761-1-041 hook and loop strips that help prevent passengers from inadvertently pulling the shoulder belts out of the D3571-1/-3 guides. Installation of the D3761-1-041 hook and loops strips is optional.

The D3761-1-041 hook and loop strip is installed by wrapping the strip tightly around the front face of the D3571-1/-3 guide so that the "loop" side of the strip is exposed to the shoulder belt as shown in the figure below. The kits are as follows:

QTY -011	QTY -013	QTY -015	QTY -017	Part Number	Description
X				DSI9408-011	9-Man Hook and Loop Strip Kit Upgrades D412-702-041A kits at CHG 001 Upgrades D412-702-041B kits at CHG 002
	X			DSI9408-013	5-Man Hook and Loop Strip Kit Upgrades D412-702-043A Kits at CHG 001 Upgrades D412-702-043B Kits at CHG 002
		X		DSI9408-015	4-Man Hook and Loop Strip Kit Upgrades D412-702-047A Kits at CHG 001 Upgrades D412-702-047B Kits at CHG 002
			X	DSI9408-017	1-Man Hook and Loop Strip Kit Upgrades D412-702-049A Kits at CHG 001 Upgrades D412-702-049B Kits at CHG 002 Upgrades D412-702-051A Kits at CHG 001 Upgrades D412-702-051B Kits at CHG 001 Upgrades D412-702-052A Kits at CHG 001 Upgrades D412-702-052B Kits at CHG 001
9	5	4	1	D3761-1-041	Hook and Loop Strip



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DEPARTMENT OF TRANSPORT
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DAO # 01-O-01

APPROVED
BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 08.03.05
CERT. NO.: SH04-7
ISSUE NO.: 3

A	NEW ISSUE	LE	08.03.05
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>[Signature]</i>	DRAWING NO.	REV. A
CHECKED	<i>[Signature]</i>	DSI 9408	SHEET 1 OF 1
MFG. APPR.	N/A	TITLE	SCALE
APPROVED	<i>[Signature]</i>	HOOK AND LOOP STRIP	NTS
DE APPR.	<i>[Signature]</i>	COPYRIGHT © 2008 BY DART AEROSPACE LTD	
DATE	08.03.05	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

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7051 B

Status	Item ID	Rev	Name	Start Date	Quantity	Pe	UOM	Scrap %	Route	Seq	IE	Sort	Comments	Date Last Mod	Add Date
✓	AN4-10A		Bolt	01/01/2008	2.0000		Each	0 %	110			0		05/12/2009 7:16 PM	05/12/2...
✓	AN4-44A		Bolt	13/04/2010	1.0000		Each	0 %	110			0		13/04/2010 2:12 PM	13/04/2...
✓	AN960JD416		Washer	01/01/2008	3.0000		Each	0 %	110			0		05/12/2009 7:16 PM	05/12/2...
✓	AN960JD416L		Washer	01/01/2008	2.0000		Each	0 %	110			0		05/12/2009 7:16 PM	05/12/2...
✓	D3542-1		Bracket	05/12/2009	1.0000		Each	0 %	110			0		05/12/2009 8:29 PM	05/12/2...
✓	D3571-3		Guide	05/12/2009	1.0000		Each	0 %	110			0		05/12/2009 8:30 PM	05/12/2...
✓	D3610-041		Bracket	05/12/2009	1.0000		Each	0 %	110			0		05/12/2009 8:30 PM	05/12/2...
✓	D3618-1		CAP	05/12/2009	1.0000		Each	0 %	110			0		05/12/2009 8:30 PM	05/12/2...
✓	D3761-1-041		HOOK & LOOP STRIP	05/12/2009	1.0000		Each	0 %	110			0		05/12/2009 8:31 PM	05/12/2...
✓	D412-702-107B		Harness Assembly	01/01/2008	1.0000		Each	0 %	110			0		05/12/2009 7:16 PM	05/12/2...
✓	MS21042L4		Nut	01/01/2008	3.0000		Each	0 %	110			0		05/12/2009 7:16 PM	05/12/2...
✓	MS24693-S274		Screw	01/01/2008	1.0000		Each	0 %	110			0		05/12/2009 7:16 PM	05/12/2...



The value adding parts of the process are obvious, so companies mistakenly focus on trying to make them go faster. The waste is not obvious, so it is not addressed. Lean focuses on eliminating the waste.

Lean is ongoing, there is no end to the search for waste!